

REMARKS

Claims 1, 7, 9, 11 and 13 are presented for consideration, with Claims 1 and 13 being independent.

Claims 1 and 13 have been amended to further distinguish Applicant's invention from the cited art. Claim 12 has been cancelled.

Claims 1, 9 and 11-13 stand rejected under 35 U.S.C. §103 as allegedly being obvious over Gruber '177 in view of Griner '272. Claim 7 stands rejected as allegedly being obvious over Gruber in view of Griner, and further in view of Hoffman '623. These rejections are respectfully traversed.

Claim 1 of Applicant's invention relates to a target object modification apparatus comprised of an aligner device configured to be able to manipulate a posture of a supplied target modification minute object, first feed means configured to be able to supply the target modification minute object to the aligner device, and first injection means configured to be able to inject first modifiers onto the target modification minute object after the target modification minute object is set to a predetermined posture by the aligner device. In addition, second injection means is configured to be able to inject second modifiers onto the target modification minute object after the target modification minute object is set to a predetermined posture by the aligner device, a carriage is configured to align an injection position for the target modification minute object of the first injection means and the second injection means, and second feed means is configured to extract the target modification minute object from the aligner device. As amended, Claim 1 recites that the aligner device includes a plurality of manipulation

electrodes, with the manipulation electrodes being arranged around a recessed hole in the aligner device.

Support for the amendments to Claim 1 can be found, for example, in Figure 1 and the accompanying specification beginning on page 9, line 7.

The primary citation to Gruber relates to a sample chip that is said to include an aligner device for producing an optical trap, microchannels 42 serving as feed means, and fluid supply microchannels 44 serving as injection channels. As shown in Figure 4, a sample channel 50 includes a barrier 62 formed of spaced-apart rods 64. Objects 59 flowing through the microchannels 42 and 44 can be controlled and manipulated by the barrier. The Office Action acknowledges that Gruber does not provide a carriage for aligning the injection channels with injection means, such as a syringe.

The secondary citation to Griner is cited to compensate for the deficiencies in Gruber. In Griner, a holder for storing a specimen tray is said to include a carriage, i.e., dispensing nozzle 148. As shown in Figure 20, tubing 154 supplies a reagent from vial 42 to the dispensing nozzle.

In contrast to Claim 1 of Applicant's invention, however, neither Gruber nor Griner is understood to teach or suggest, among other features, an aligner device that includes a plurality of manipulation electrodes, with the manipulation electrodes being arranged around a recessed hole in the aligner device. As shown in Griner, an individual fluid dispenser portion 158 in the dispensing nozzle fills a specimen tray 12, but the dispensing nozzle does not include the feature of Applicant's claimed aligner device.

Accordingly, the proposed combination of Gruber and Griner, even if proper, still fails to teach or suggest Claim 1 of Applicant's invention.

With respect to Claim 13 of Applicant's invention, a method for modifying modifiers onto a target object includes a supplying step of supplying a target modifying modification minute object to an aligner device, a first injection head moving step of moving a first injection head to the supplied target modification minute object, and a first aligning step of aligning the target modification minute object such that a first surface to which first modifiers should be added opposes the first injection head. Additional steps include a first modifying step of injecting and modifying the first modifiers from the first injection head onto the first surface of the target modification minute object, a second injection head moving step of moving a second injection head to the target modification minute object supplied by the aligner device, and a second aligning step of aligning the target modification minute object such that a second surface to which second modifiers should be added opposes the second injection head. A second modifying step injects and modifies the second modifiers from the second injection head onto the second surface of the target modification minute object. Finally, an extraction step extracts the target modification minute object from the aligner device.

In Claim 13, therefore, the first modifiers are injected onto a first surface of the target modification minute object, and the second modifiers are injected onto a second surface of the target modification minute object. This allows the first and second modifiers to be ideally placed on the target modification minute object, a feature missing from both Gruber and Griner. For at least these reasons, it is submitted that the proposed combination of art, even if proper, still fails to teach or suggest Applicant's invention as set forth in Claim 13.

Accordingly, reconsideration and withdrawal of the rejection of Claims 1, 9 and 11-13 under 35 U.S.C. § 103 is respectfully requested.

The tertiary citation to Hoffman relates to a cleaning apparatus and is relied on for disclosing a recovering mechanism for cleaning and sterilizing injection means. Hoffman fails, however, to compensate for the deficiencies in the art discussed above with respect to independent Claim 1. Accordingly, reconsideration and withdrawal of the rejection of Claim 7 under 35 U.S.C. § 103 is respectfully requested.

Thus, it is submitted that Applicant's invention as set forth in independent Claims 1 and 13 is patentable over the cited art. In addition, dependent Claims 7, 9 and 11 set forth additional features of Applicant's invention. Independent consideration of the dependent claims is respectfully requested.

Due consideration and prompt passage to issue are respectfully requested.

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

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